

Name: \_\_\_\_\_

### Remediation – Function Evaluation

After you have watched the video from the wiki, you should try the following problems and then use the key to check your work. You can also use the store function on your calculator

Directions: Please use the functions below to perform the given evaluation.

$$f(x) = -x^2 - x$$

$$g(x) = \frac{2}{3}x^2 - 3x + 1$$

$$h(x) = 4 - |3 - x|$$

1.  $f(-7)$

$$\begin{aligned} &= -(-7)^2 - (-7) \\ &= -49 + 7 \\ &= \boxed{-42} \end{aligned}$$

2.  $h(12)$

$$\begin{aligned} &= 4 - |3 - 12| \\ &= 4 - |-9| \\ &= 4 - 9 = \boxed{-5} \end{aligned}$$

3.  $g(-3)$

$$\begin{aligned} &= \frac{2}{3}(-3)^2 - 3(-3) + 1 \\ &= \frac{2}{3}(9) + 9 + 1 \\ &= 6 + 9 + 1 = \boxed{16} \end{aligned}$$

4.  $h(-7)$

$$\begin{aligned} &= 4 - |3 - (-7)| \\ &= 4 - |3 + 7| \\ &= 4 - |10| \\ &= 4 - 10 \\ &= \boxed{-6} \end{aligned}$$

5.  $f(2.3)$

$$\begin{aligned} &= -(2.3)^2 - 2.3 \\ &= -5.29 - 2.3 \\ &= \boxed{-7.59} \end{aligned}$$

6.  $g(0)$

$$\begin{aligned} &= \frac{2}{3}(0)^2 - 3(0) + 1 \\ &= 0 - 0 + 1 \\ &= \boxed{1} \end{aligned}$$